

# MACal® 9800 BF PRO

## *Technical Data Sheet*

### PRODUCT DESCRIPTION

MACal 9800 BF PRO are premium polymeric stabilized calendered soft vinyl films coated with a durable permanent micro-structured adhesive giving excellent dimensional stability.

MACal 9800 BF PRO is specifically designed for trouble-free computer cutting, fast weeding and easy application of large letters.

### CONSTRUCTION

#### **Face material :**

Polymeric stabilized calendered vinyl, 66 µm thick, cadmium-free.

#### **Adhesive :**

High quality clear solvent based micro-structured permanent acrylic adhesive.

#### **Liner :**

Highly stable 145 gsm white micro-embossed PE coated paper back printed in blue.

### TYPICAL USES

MACal 9800 BF PRO is designed for long term interior and exterior marking applications (vehicle marking, window graphics, signs...). The BF adhesive allows faster and trouble free application onto substrates.

MACal 9800 BF PRO provides ideal conformability over simple contours.

### EXPECTED DURABILITY

The expected vertical outdoor durability of the unprocessed product in central Europe (Zone 1) is up to:

10 years : white and black

This information is based on successful real life experience and artificial aging according to ISO 4892-2.

**Note :** Exposure to severe temperatures and ultraviolet light, as well as conditions in southern European countries, and also in tropical, sub-tropical or desert regions, will cause a more rapid deterioration. This also applies to polluted areas, high altitude, horizontal and south-facing exposure.

### SHELF LIFE

2 years when stored at 15 to 25°C and ± 50 % relative humidity.

### PHYSICAL PROPERTIES (Typical values)

**Thickness** (mm) (Film + adhesive) ISO 534  
0.095

**Face Material Data, 23°C** DIN ISO 527-3

Tensile strength : ≥ 27 N/15mm

Elongation at break : ≥ 150 %

#### **Adhesive Data, 23°C**

FTM 1

Peel adhesion 180° on stainless steel (N/25mm)

- 20 min. residence : 14

- 24 hours residence: 16

- 1 week residence : 18

#### **Dimensional stability**

FTM 14

Shrinkage (1 week at 70°C) : < 0.2 mm

#### **Temperature ranges :**

Application : + 8°C to + 40°C

End-use : - 40°C to + 90°C

#### **Flammability**

ISO 3795

Sample mounted on aluminium : self-extinguishing.

#### **Solvent and chemical resistance**

Resistant to most oils and grease, fuel, aliphatic solvents, weak acids, salts and alkalis.

### PROCESSING

#### **Computer cutting**

Clean, quick, trouble-free cutting with most plotters. Adjustment of the cutting depth is important: if the cut is too deep this could result in the paper splitting and coming away with the adhesive when the vinyl is transferred to Application Tape. This BF version of MACal 9800 Pro should not be used for cutting small letters as there could be some edge lifting due to the reduced surface contact linked to the presence of air micro-channels.

#### **Application**

The transfer of the cut vinyl onto the Application Tape should always be performed by removing the liner from the pressure-sensitive material (i.e. with the PVC face downwards onto the working surface) and not by lifting off the Application Tape.

MACal 9800 BF PRO should always be applied with the dry application method on flat to slightly curved surfaces.

#### **Important remark**

All surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination. The compatibility of paints and lacquers should be tested by the end-user, prior to use.

#### **Edge sealing and varnishing**

Where exposure to chemicals and solvent spillage is likely to occur, edge sealing of decals with a varnish will prevent edge lift. Correct varnishing of decals gives greater protection, and extends the use-life against prolonged effects of weathering, abrasion and other effects such as frequent cleanings.

**IMPORTANT NOTICE**

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